

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): An antireflection film comprising:

a transparent support; and

a low-refractive index layer having a lower refractive index than the transparent support, wherein the low-refractive index layer is an outermost layer of the antireflection film, and the low-refractive index layer comprises: a hollow silica particle; and a compound lowering a surface free energy of the antireflection film,

wherein a silicone is segregated at an outer surface of the low-refractive index layer such that a spectral intensity ratio Si/C in a photoelectron spectrum at the outer surface is larger by at least 5 times than that at a depth from the outer surface, the depth being equal to 80 % of a thickness of the low-refractive index layer,

wherein the compound is a silicone compound,

wherein the low-refractive index layer comprises a binder, and the compound comprises a reactive group with the binder,

wherein the compound comprises a (meth)acryloyl group,

wherein the binder is a (co)polymer of a monomer having two or more ethylenic unsaturated groups, and the monomer having two or more ethylenic unsaturated groups is an ester of a polyalcohol and a (meth)acrylic acid,

wherein the binder substantially does not have a fluoroalkyl group.

Claims 2-12 (Canceled)

Claim 13 (Previously Presented): The antireflection film as claimed in claim 1, which comprises a layer comprising at least one of a hydrolysate of an organosilane and a partial condensate of the organosilane, wherein the hydrolysate and the partial condensate is produced in the presence of at least one of an acid catalyst and a metal chelate compound, and the organosilane is represented by formula (A):



wherein R^{10} represents a substituted or unsubstituted alkyl group, or a substituted or unsubstituted aryl group; X represents a hydroxyl group or a hydrolyzable group; and m indicates an integer of 1 to 3.

Claims 14-29 (Canceled)

Claim 30 (Withdrawn): A polarizing plate comprising an antireflection film of claim 1.

Claim 31 (Withdrawn): A polarizing plate comprising:
a polarizing sheet; and
a transparent protective film on one side of the polarizing sheet, the transparent protective film comprising an antireflection film of claim 1.

Claims 32-39 (Canceled)

Claim 40 (Withdrawn): A method for producing a polarizing plate of claim 30, which comprises:

feeding a polymer film for a polarizing sheet;

holding each edge of the polymer film with a holding unit; and

stretching the polymer film by imparting a tension to the polymer film while moving the holding unit in a machine direction of the polymer film

wherein

the stretching is performed under a condition satisfying formula (III):

$$|L2 - L1| > 0.4W$$

wherein L1 indicates a locus of the first holding unit from a substantial holding start point to a substantial holding release point on one edge of the polymer film; L2 indicates a locus of the second holding unit from a substantial holding start point to a substantial holding release point on the other edge of the polymer film; and W indicates a distance between two substantial holding release points of the first holding unit and the second holding unit, and

a speed difference of the moving between the first holding unit and the second holding unit is less than 1%.

Claim 41 (Withdrawn): The method for producing a polarizing plate as claimed in claim 40, wherein the stretching is performed under keeping a volatile content of the polymer film at least 5 % by volume, and the volatile content is decreased while the polymer film is shrunk.

Claim 42 (Withdrawn): The method for producing a polarizing plate as claimed in claim 40, which comprises sticking a transparent protective film to one side of the polarizing sheet, the protective film having an antireflection film.

Claim 43 (Withdrawn): An image display device comprising an antireflection film of claim 1.

Claim 44 (Withdrawn): The image display device as claimed in claim 43, which is a liquid crystal display device.

Claim 45 (Withdrawn): The image display device as claimed in claim 43, which is a transmissive, reflective or semi-transmissive liquid crystal display of any mode of TN, STN, IPS, VA or OCB.

Claims 46-59 (Canceled)

Claim 60 (Currently Amended): An antireflection film comprising:
a transparent support; and
a low-refractive index layer having a lower refractive index than the transparent support, wherein the low-refractive index layer is an outermost layer of the antireflection film, and the low-refractive index layer comprises: a hollow silica particle; and a compound lowering a surface free energy of the antireflection film,
wherein the surface free energy is at most 25 mN/m,
wherein the compound is a silicone compound,

wherein the low-refractive index layer comprises a binder, and the compound comprises a reactive group with the binder,

wherein the compound comprises a (meth)acryloyl group,

wherein the binder is a (co)polymer of a monomer having two or more ethylenic unsaturated groups, and the monomer having two or more ethylenic unsaturated groups is an ester of a polyalcohol and a (meth)acrylic acid,

wherein the binder substantially does not have a fluoroalkyl group.

Claims 61-69 (Canceled)

Claim 70 (New): An antireflection film comprising:

a transparent support; and

a low-refractive index layer having a lower refractive index than the transparent support, wherein the low-refractive index layer is an outermost layer of the antireflection film, and the low-refractive index layer comprises: a hollow silica particle; and a compound lowering a surface free energy of the antireflection film,

wherein a silicone is segregated at an outer surface of the low-refractive index layer such that a spectral intensity ratio Si/C in a photoelectron spectrum at the outer surface is larger by at least 5 times than that at a depth from the outer surface, the depth being equal to 80 % of a thickness of the low-refractive index layer,

wherein the compound is a silicone compound,

wherein the low-refractive index layer comprises a binder, and the compound comprises a reactive group with the binder,

wherein the compound comprises a (meth)acryloyl group,

wherein the binder consists of a (co)polymer of only a monomer having two or more ethylenic unsaturated groups, wherein the monomer having two or more ethylenic unsaturated groups consists of ethylene glycol di(meth)acrylate, 1,4-cyclohexane diacrylate, pentaerythritol tetra(meth)acrylate, pentaerythritol tri(meth)acrylate, trimethylolpropane tri(meth)acrylate, trimethylolethane tri(meth)acrylate, dipentaerythritol tetra(meth)acrylate, dipentaerythritol penta(meth)acrylate, dipentaerythritol hexa(meth)acrylate, 1,2,3-cyclohexane tetramethacrylate, polyurethane polyacrylate, polyester polyacrylate, or a combination thereof.

Claim 71 (New): The antireflection film as claimed in claim 60, wherein the binder consists of a (co)polymer of only a monomer having two or more ethylenic unsaturated groups, wherein the monomer having two or more ethylenic unsaturated groups consists of ethylene glycol di(meth)acrylate, 1,4-cyclohexane diacrylate, pentaerythritol tetra(meth)acrylate, pentaerythritol tri(meth)acrylate, trimethylolpropane tri(meth)acrylate, trimethylolethane tri(meth)acrylate, dipentaerythritol tetra(meth)acrylate, dipentaerythritol penta(meth)acrylate, dipentaerythritol hexa(meth)acrylate, 1,2,3-cyclohexane tetramethacrylate, polyurethane polyacrylate, polyester polyacrylate, or a combination thereof.